

III. REMARKS

Johnson discloses an antenna wherein dielectric material is used between the radiator and the ground plane. The Examiner is of the opinion that there is an air gap between the radiator and the ground plane. Possibly the Examiner is referring to the air between the edges of the radiator and the ground plane. However, in the structure of Johnson air does not affect the functioning of the antenna.

Johnson also does not disclose using low reluctance material, and the Examiner therefore has cited another document, Akiba et al. Primarily Akiba et al. discloses using an electricity conducting structure and a current loop around electronic circuits. This is completely different compared to the present invention.

The Examiner also states that it is possible to achieve the present invention by combining the antenna of Johnson with a shielded circuit board of Akiba et al. However, it is noted that in Akiba et al. the shielding is used around a radiating component in order to reduce radiation to the environment. Consider starting from the antenna disclosed by Johnson, and then introduce a problem of excessive radiation to other circuits. Then, Akiba et al. would solve this problem by surrounding the antenna with a conducting current loop, which might also include ferromagnetic material. The references do not give any suggestions to reduce the radiation effect of the antenna to the other electronic circuits by using low reluctance material near to the electronic circuit. Therefore combining the two cited references does not result in the present invention.

The cited references do not disclose an antenna with a functional air gap between the radiator and the ground plane. The claims now recite "the space between the radiator element and the ground plane is substantially air, thus forming an air gap" (See Figs. 2 and 5). This defines over Johnson which has dielectric material (and air just in the edges).

Thus, even if Johnson and Akiba et al. are combined, the result is not the present invention.

The Examiner also states that it is well known to use a light guide with a display unit and that one skilled in art would recognize to attach a layer of low reluctance material to the light guide to improve antenna efficiency. There is nothing in the references that would suggest using low reluctance material at the display. It is also respectfully submitted that it is not the purpose of the low reluctance material to improve antenna efficiency as the Examiner suggests. Thus claims 5 and 15 are additionally patentable for these reasons.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

A check in the amount of \$120.00 is enclosed for a 1 month extension of time. The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.



Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service on the date indicated below as first class mail in an envelope addressed to the Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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